

IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (previously presented) Process for the manufacture of a work hardened product made of a high mechanical strength Al-Zn-Mg-Cu aluminum alloy comprising:

- casting an ingot made of an alloy with composition (% by weight) Zn=7.0-11.0, Mg=1.8-3.0; Cu=1.2-2.6, at least one of the elements Mn (0.05-0.4), Cr (0.05-0.3), Zr (0.05-0.20), Hf (0.05-0.5), V (0.05-0.3), Ti (0.01-0.2) and Sc (0.05-0.3), the remainder being made of aluminum and inevitable impurities,
- optionally homogenizing said ingot,
- hot rolling said ingot,
- solution heat treating said hot rolled ingot and quenching of the product obtained,
- optionally controlled stretching of the quenched product with a permanent set between 1 and 5%, and
- artificially aging the quenched and optionally stretched product in a single step or in two steps at a temperature and with a duration equivalent to about 100-230 hours at 120°C, sufficient to maximize compression yield strength in the L direction.

2. (previously presented) Process according to claim 1, wherein the alloy contains magnesium between 1.8 and 2.4%.

3. (previously presented) Process according to claim 1, wherein the alloy contains copper between 1.6 and 2.2%.

4. (previously presented) Process according to claim 1, wherein the alloy contains magnesium between 1.8 and 2.4%, and copper between 1.6 and 2.2%.

5. (previously presented) Process according to claim 1, wherein the alloy is a 7349 or 7449 aluminum alloy.

6. (previously presented) Process according to claim 1, wherein the alloy is a 7055 aluminum alloy.

7. (previously presented) Process for the manufacture of a

work hardened product made of a high mechanical strength Al-Zn-Mg-Cu aluminum alloy comprising:

- casting an ingot made of an alloy with composition (% by weight) Zn=7.0-11.0, Mg=1.8-3.0, Cu=1.2-2.6, at least one of the elements Mn (0.05-0.4), Cr (0.05-0.3), Zr (0.05-0.20), Hf (0.05-0.5), V (0.05-0.3), Ti (0.01-0.2) and Sc (0.05-0.3), the remainder being made of aluminum and inevitable impurities,
- optionally homogenizing said ingot,
- hot rolling said ingot,
- solution heat treating the hot rolled ingot and quenching the resulting product,
- optionally controlled stretching of the quenched product with a permanent set between 1 and 5%,
- single step artificially aging the optionally stretched product at a temperature and with a duration included within a parallelogram ABCD, having vertices with the following coordinates in a temperature-duration diagram:

A: 120°C-100 h B: 145°C-9 h C: 145°C-22 h D: 120°C-230 h.

Claim 8 (canceled).

9. (previously presented) Process according to claim 1, wherein the artificial aging time equivalent at 120°C is about 150 h.

10. (previously presented) Process according to claim 1, wherein the artificial aging time equivalent at 120°C is 50 to 200 h longer than the time corresponding to temper T651.

11. (currently amended) Process according to claim 1, wherein said artificial aging is a two-step aging comprising a first step at a temperature between 80°C and 120°C, and a second step at a temperature between 120°C and 160°C, ~~and wherein the artificial aging time equivalent at 120°C is between 100 and 250 h.~~

Claims 12-24 (canceled).

25. (previously presented) Process according to claim 1, wherein the alloy contains magnesium between 2.15 and 3.0%.

26. (previously presented) Process according to claim 1, wherein the alloy is artificially aged to a metallurgical temper between T6 and T79.

27. (previously presented) Process according to claim 1, wherein the alloy is artificially aged to a metallurgical temper between T651 and T7951.

28. (previously presented) Process according to claim 7, wherein the alloy contains magnesium between 2.15 and 3.0%.

29. (previously presented) Process according to claim 7, wherein the alloy is artificially aged to a metallurgical temper between T6 and T79.

30. (previously presented) Process according to claim 7, wherein the alloy is artificially aged to a metallurgical temper between T651 and T7951.

31. (new) Process according to claim 11, wherein the second step of the artificial aging is at a temperature of between 120°C and 150°C.

32. (new) Process according to claim 1, wherein the copper content of the alloy is between 1.2 and 1.95% by weight.

33. (new) Process according to claim 32, wherein the zinc content of the alloy is between 7.0 and 8.38%.